

## ELEMENTARY Article: Energy Pioneers

### George Washington Carver

#### A Humble Beginning

George Washington Carver was born around 1864. He was born a slave on a small Missouri farm. He worked in the house, doing chores like washing and cleaning. During his youth on the farm, Carver took long walks through the woods, exploring nature and learning what he could by observing the trees, insects and flowers.



Pond near Carver's boyhood home in Missouri.  
Credit: National Park Service

#### A Great Student

Even though he had a great curiosity about the world around him, Carver was not allowed to attend the local school because he was African American. The farm owners, Moses and Susan Carver, allowed him to leave the farm and attend a school for African American children. He paid for his food, a place to stay and the cost of school by doing laundry and cooking. Whenever Carver could afford to go to school, he did.

When he graduated, Carver started a small farm in Kansas. He was a better student than a farmer and went back to school in Iowa in 1890. Carver took art classes at Simpson College. He drew and painted very detailed plants and flowers. After a while, he switched to studying agriculture so he could focus on nature and his desire to help farmers. In 1891, Carver began attending Iowa Agricultural College. He earned both his college degree and an advanced degree.



Carver in a farm field.  
Credit: National Park Service

#### The Heart of a Teacher

In 1896, Carver became a teacher at Tuskegee Institute in Alabama. Carver wished he could teach rural farmers about ways to improve their crops. He created moveable schools to take the classroom to the farmers. Classes were often taught in farm fields from the back of a wagon. Carver taught about crop rotation and natural fertilizers. By 1930, the moveable schools had a nurse, a home demonstration agent, an agricultural specialist, and an architect who shared the latest information with rural people.

#### The Mind of a Scientist

Carver wanted to help African American farmers be able to support their families with the crops they grew. He discovered practical new uses for crops. Carver worked in an area of chemistry known as chemurgy. A chemurgist finds industrial uses for crops. Carver mostly studied the peanut, soybean and sweet potato. He found more than 300 new uses for the peanut, 100 for sweet potatoes and 100 for soybeans.



Credit: Library of Congress

Henry Ford was very interested in the work that Carver was doing with soybeans. Carver consulted with Ford on many projects. In 1942, Ford developed a vehicle that used a bushel of soybeans in its construction. Ford and Carver both believed that petroleum supplies were limited. They worked together on projects that replaced petroleum with crops to produce rubber, plastic and fuel. Today, the fuel that Carver made from soybeans is called biodiesel.

#### The Spirit of a Gentle Man

During his free time, Carver would draw, paint, crochet, knit or do needlework. He enjoyed making useful items for his friends from natural materials. Carver was also interested in natural pigments. He would use soil, berries and plants to make bright and bold colors for paint and fabric dyes. Upon making a new color of paint, Carver would often take it to a local farmer and help paint the outside of the house. Improving the lives of others both on and off the fields was important to Carver.

#### A Great Legacy

George Washington Carver is an energy pioneer because of his work with soy fuels. He developed many products from crops that we still use today. Carver taught practical things, always wanted to learn more, and wanted to help other people have better lives.



Statue of Carver at George Washington Carver National Monument, MO.